



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,544	05/10/2005	Shmuel Pietrokovski	29489	7801

7590 01/14/2008  
Martin Moynihan  
Anthony Castorina  
Suite 207  
2001 Jefferson Davis Highway  
Arlington, VA 22202

EXAMINER

OGUNBIYI, OLUWATOSIN A

ART UNIT	PAPER NUMBER
----------	--------------

1645

MAIL DATE	DELIVERY MODE
-----------	---------------

01/14/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/534,544

**Applicant(s)**

PIETROKOVSKI ET AL.

**Examiner**

Oluwatosin Ogunbiyi

**Art Unit**

1645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 5/10/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-121 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-121 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

***DETAILED ACTION***

Claims 1-121 are pending in the application.

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Invention 1, Group 1 drawn to claim(s) 1-18, 19-61, 62-82, 106-121 in part, the first appearing technical feature drawn to a chimeric polypeptide comprising an autoproducting segment having an amino acid sequence set forth by SEQ ID NO: 8; drawn to a polynucleotide encoding a chimeric polypeptide comprising an autoproducting segment having an amino acid sequence set forth by SEQ ID NO: 8; drawn to a method of generating a chimeric polypeptide capable of displaying auto-cleavage, the method comprising generating a chimeric amino acid sequence including an autoproducting segment, said autoproducting segment having an amino acid sequence set forth by SEQ ID NO: 8 and drawn to a method of reversibly attaching a first substrate to a second substrate, the method comprising: (a) providing a chimeric polypeptide including an autoproducting segment having an amino acid sequence set forth by SEQ ID NO: 8.

Invention 2, comprising Groups 2-100, claim(s) 83-105 drawn to a method of purifying a protein, the method comprising: (a) generating a chimeric polypeptide including an autoproducting segment having any amino acid sequence set forth

by SEQ ID NO: 8-106. Please note that each group comprises a specific amino acid sequence from SEQ ID NO:s 8-106, respectively.

Invention 3, comprising Groups 101-198, claim(s) 1-18 drawn to a chimeric polypeptide comprising an autoprocessing segment having any amino acid sequence selected from SEQ ID NO: 9-106. Please note that each group comprises a specific amino acid sequence from SEQ ID NO:s 9-106, respectively.

Invention 4, comprising Groups 199-296, claim(s) 19-61 drawn to a polynucleotide encoding a chimeric polypeptide comprising an autoprocessing segment having any amino acid sequence set forth by SEQ ID NO: 9-106. Please note that each group comprises a specific amino acid sequence from SEQ ID NO:s 9-106, respectively.

Invention 5, comprising Groups 297-394 claim(s) 62-82 drawn to a method of generating a chimeric polypeptide capable of displaying auto-cleavage, the method comprising generating a chimeric amino acid sequence including an autoprocessing segment, said autoprocessing segment having any amino acid sequence set forth by SEQ ID NO: 9-106. Please note that each group comprises a specific amino acid sequence from SEQ ID NO:s 9-106, respectively.

Invention 6, comprising Groups 395-492, claim(s) 106-121 drawn to a method of reversibly attaching a first substrate to a second substrate, the method comprising: (a) providing a chimeric polypeptide including an autoprocessing segment having any amino acid sequence set forth by SEQ ID NO: 9-106.

Please note that each group comprises a specific amino acid sequence from SEQ ID NO:s 9-106, respectively.

The inventions listed as inventions 1-6 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the protein sequences of SEQ ID: 8-106 lack a common amino acid sequence and thus the proteins sequences lack unity. Therefore, the inventions as a whole lack unity.

#### ***Notice of Possible Rejoinder***

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during

prosecution to require the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### ***Species Election***

#### Inventions 1,3,4,5,6

A. Species of organism: *Rhodobacter capsulatus*, *Rhodobacter sphaeroides*, *Silicibacter pomeroyi*, *Brucella melitensis*, *Brucella suis*, *Magnetospirillum magnetotacticum*, *Methylobacterium extorquens*, *Rhizobium leguminosarum*, *Neisseria meningitidis*, *Neisseria meningitidis*, *Neisseria meningitidis*, *Neisseria gonorrhoeae*, *Chromobacterium violaceum*, *Pseudomonas syringae*, *Pseudomonas fluorescens*, *Pseudomonas fluorescens*, *Mannheimia haemolytica*, *Myxococcus xanthus*, *Leptospira interrogans*, *Streptomyces coelicolor*, *Streptomyces avermitilis*, *Thermobifida fusca*, *Clostridium thermocellum*, *Pirellula species 1*, *Gemmata obscuriglobus*, *Gloeobacter violaceus*, and *Verrucomicrobium spinosum*.

B. Species of substrate: 1. a compound/molecule, 2. a virus, and 3. a cell.

The following claims are generic and deemed to correspond to the species listed above in the following manner: 3,-9,10-15, 21,23-233,37,41,43,47,49,51-61,63-68,70,72-82,84-93,95,97-105,113,115-121.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: the species of

organisms lack a common structure and *Rhodobacter capsulatus* is known in the art and the species of cell is known in the art therefore does not define a special technical feature (Nabedryk et al et al. Biochemistry, 2000, p. 14654-14663). Nabedryk et al teach a *Rhodobacter capsulatus* cell.

Applicant is required, in reply to this action, to elect a single species (from A and B above) to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions

Application/Control Number:  
10/534,544  
Art Unit: 1645

Page 7

unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

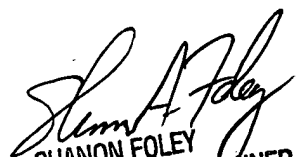
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Oluwatosin Ogunbiyi whose telephone number is 571-272-9939. The examiner can normally be reached on M-F 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley can be reached on 571-272-0898. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Oluwatosin Ogunbiyi  
Art unit, 1645



SHANON FOLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600